## INTERNATIONAL SEARCH REPORT

Application No PCT/IB 03/02483

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H01J31/12 H01J29/46

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 H01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the	ne relevant passages	Relevant to claim No.		
X	US 4 103 204 A (CREDELLE THOMA 25 July 1978 (1978-07-25) column 5, line 35-43; figures column 9, line 43-45,52-57	·	1-4,6-9, 11,12		
X	US 4 031 427 A (STANLEY THOMAS 21 June 1977 (1977-06-21) column 5, line 44-58; figures column 6, line 6-9		1-10, 12-14		
Y	column 7, line 20-22 - " -		15		
X	US 4 181 871 A (GANGE ROBERT A 1 January 1980 (1980-01-01) column 2, line 43-48; figures column 3, line 35,36 column 4, line 38-49		1-3,7-9, 12		
χ Funt	her documents are listed in the continuation of box C.	Patent family members are listed	in annex.		
"A" docume consice "E" earlier of filling of which citatio "O" docume other other of docume other other of docume other	ent defining the general state of the art which is not lered to be of particular relevance document but published on or after the international late ent which may throw doubts on priority claim(s) or is cited to establish the publication date of another in or other special reason (as specified) ent referring to an oral disclosure, use, exhibition or means ent published prior to the international filing date but nan the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.  "&" document member of the same patent family			
Date of the	actual completion of the international search	Date of mailing of the International sea	arch report		
4	September 2003	11/09/2003			
Name and i	mailing address of the ISA  European Patent Office, P.B. 5818 Patenttaan 2  NL - 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Weisser, W			



Intern Application No
PCT/IB 03/02483

C (Continue	HON DOCUMENTS CONSIDERED TO BE BELEVANT	PC1/1B 03/02483					
C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT  Category Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No.							
	app. sp. mai olovaln pasagga	Total to dail 140.					
Y	WO 98 35375 A (KONINKL PHILIPS ELECTRONICS NV ;PHILIPS NORDEN AB (SE)) 13 August 1998 (1998-08-13) figures 2-4	15					
Α	1190100 2 1	12-14					
Α	US 5 838 102 A (BIJLOO JAN A) 17 November 1998 (1998-11-17) column 5, line 40-47; figure 3	12-14					

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 4103204	A	25-07-1978	AU	501789	R2	28-06-1979
03 4103204	^	23 07 1970	AU	1675176		16-02-1978
			CA	1065948		06-11-1979
			DE	2638308		
						10-03-1977
			ES	450786		01-08-1977
			FR	2322451		25-03-1977
			GB	1557798		12-12-1979
			JP	1046804		28-05-1981
			JP		A	03-03-1977
			JP		В	07-11-1980
			NL	7609400		01-03-1977
			SE	410674		22-10-1979
			SE	7609314		26-02-1977
			US	4103205		25-07-1978
			ZA	7604976	A	27-07-1977
US 4031427	Α	21-06-1977	AR	208615	A1	15-02-1977
· ·	- •		AT	375492		10-08-1984
			AT	630376		15-12-1983
			AU	501361		21-06-1979
			AU	1675276		16-02-1978
			BE	845475		16-12-1976
			BR	7605542		09-08-1977
			CA	1065385		30-10-1979
			DD	126875		17-08-1977
			DE	2638309		10-03-1977
			DK			26-02-1977
				380676		
			ES	450785		16-08-1977
			FI	762358		26-02-1977
			FR	2322450		25-03-1977
			GB	1557799		12-12-1979
			IŢ	1067934		21-03-1985
			JP	1046803		28-05-198
			JP	52052360		27-04-1977
			JP	55043578		07-11-1980
			MX	3231		29-07-1980
			NL	7609396		01-03-1977
			PL	119308		31-12-198
			SE	7609315		26-02-1977
			ZA	7604975	Α	27-07-1977
US 4181871	A	01-01-1980	NONE			
WO 9835375	A	13-08-1998	WO	9835375	A1	13-08-1998
	-		EP	0897590		24-02-1999
			JP	2000509887		02-08-2000
US 5838102	Α	17-11-1998	WO .	9743780	A1	20-11-1997